California MLPA Master Plan Science Advisory Team Summary of the March 16-17, 2010 Meeting of the MLPA Master Plan Science Advisory Team Revised April 5, 2010

Meeting Date, Time and Place

Tuesday, March 16, 2010 1:50 p.m. – 5:20 p.m. and Wednesday, March 17, 2010 8:30 a.m. – 2:00 p.m.

Red Lion Hotel Eureka 1929 Fourth Street Eureka, CA 95501

SAT members attending: Larry Allen, Eric Bjorkstedt, Mark Carr, Steve Gaines, Dawn Goley, Dominic Gregorio, John Largier, Phillip Levin, Karina Nielsen, Pete Raimondi, Steven Rumrill, Astrid Scholz, Craig Strong, and Steve Wertz.

SAT members absent: Chris Costello, Kevin Fleming, David Hankin, Ron LeValley, Steven Morgan, Steve Murray, and Will White.

Meeting Objectives

- Receive updates on the MLPA North Coast Study Region marine protected area (MPA) planning process
- Review and potentially adopt the MLPA Master Plan Science Advisory Team (SAT) evaluations of the north coast existing MPAs and external MPA arrays
- Review and potentially adopt the list of species likely to benefit from MPAs for the MLPA North Coast Study Region
- Review and discuss water quality guidance for the north coast study region
- Review and potentially approve SAT responses to science questions

The meeting agenda may be found on the MLPA website at http://www.dfg.ca.gov/mlpa/meetings.asp

Executive Summary

The fifth meeting of the MLPA Master Plan Science Advisory Team (SAT) for the MLPA North Coast Study Region took place at the Red Lion Hotel in Eureka on March 16 and 17, 2010. SAT members voted to approve all evaluation results of Round 1 north coast external proposed MPA arrays, including those for habitat representation, habitat replication, MPA size, MPA spacing, bioeconomic modeling, potential commercial and recreational fishery impacts, water quality, and marine birds and marine mammals. The SAT also voted to approve the evaluation methods document chapters for habitat replication, water quality, and marine birds

and marine mammals. Finally, the SAT approved the species likely to benefit list (SLTB), the SLTB criteria document, and the draft responses to science questions. Round 1 evaluation results and draft responses to science questions will be presented to the MLPA North Coast Regional Stakeholder Group during its upcoming March 24-25 meeting in Crescent City.

Meeting Summary

Welcome, Introductions and Review of Agenda

On March 16 and 17, 2010, the fifth meeting of the MLPA Master Plan Science Advisory Team (SAT) for the MLPA North Coast Study Region (NCSR) was held in Eureka.

I. Updates

A. North coast planning progress

Ken Wiseman gave an update on the north coast planning process. The process is moving forward very well, and there was recently a productive MLPA Blue Ribbon Task Force (BRTF) meeting in Fort Bragg. The second MLPA North Coast Regional Stakeholder Group meeting is planned for March 24-25.

B. MLPA tribal policy work group

Becky Ota presented Briefing Document B.1, a memo sent by MLPA Initiative staff to the MLPA North Coast Regional Stakeholder Group (NCRSG) and the BRTF. The document conveys that there are few existing state laws that give DFG authority regarding tribal harvest, so it is difficult for the state to provide legal guidance on this issue. Tribal take currently is not consistent with the designation of a state marine reserve. The BRTF will discuss this topic further via teleconference on March 18.

C. SAT tribal work group

Satie Airamé gave an update on the SAT Tribal Work Group. The work group will continue to work with tribal representatives and has written a document (N.1) that includes some potential guidance for sharing information about tribal uses.

D. SAT responses to science questions

Satie Airamé presented the draft responses to science questions and asked the SAT to review them in preparation for Wednesday's discussion.

E. North coast habitat data

Emily Saarman presented an update on the data layers for the north coast study region. Offshore rocks are now mapped with measurable shoreline length, the fine-scale substrate mapping data has been incorporated for 81% of the study region, the nearshore substrate proxy for 0-30m has been completed for 92% of the coast, the presence/absence of eelgrass in all major north coast estuaries has been confirmed, and the oceanographic data has not yet been mapped but is under review.

II. MPA Design Guidelines and Evaluation Methods for the MLPA North Coast Study Region

F. Review and discuss SAT evaluation methods for the MLPA north coast study region

Jason Vasques presented the evaluation methods document and led the SAT through each of the chapters of the document. Emily Saarman presented specific changes to the levels of protection (LOP) chapter (the addition of the bull kelp LOP supporting text), the habitat replication chapter (additional text on the application of habitat size guidelines and the recommendation to include a habitat replicate in each bioregion), and the MPA spacing chapter (spacing is now measured between MPA edges, rather than between centroids). The SAT did not take any action on this document on day 1 of the meeting.

III. SAT Evaluations of Existing MPAs and North Coast External MPA Arrays

G. Overview of existing MPAs and external MPA arrays

Dominique Monié gave an overview of the existing MPAs and the eight external proposed MPA arrays submitted by community groups. She presented maps of the external MPA arrays, showed the overlap among the various external MPA arrays, and outlined the timeline for the review process. One important caveat is that in all evaluations, External Proposed MPA Array A, which proposed mobile MPAs, was evaluated as though the MPAs were static. In the future, the SAT could consider developing evaluation metrics that would enable the evaluation of mobile MPAs, if it appears the NCRSG will pursue this concept. Additionally, External MPA Array C designated several state marine conservation areas (SMCAs) as having no take except for tribal uses. Since none of the evaluations considered tribal uses during the evaluation process, staff will rerun certain evaluations. These new evaluations will treat the External Proposed MPA Array C SMCAs that only allow tribal take as "no take" areas; this is more representative of the intent of the proposers and allows for all arrays to be accurately compared.

H. Review and discuss the habitat representation and habitat replication evaluation results

Karina Nielsen presented the habitat representation and habitat replication evaluation results. Overall, external proposed MPA arrays C, D and E protect a higher amount of open coast habitat, while external proposed MPA arrays B, F, G and H protect less and were all similar to each other. The presentation to the NCRSG will include replication of MPAs down to Point Reyes, since the SAT has determined that the southern portion of the north coast study region is an extension of the northern bioregion of the north central coast study region. The SAT approved the evaluation results and the presentation.

I. Review and discuss the MPA size and MPA spacing evaluation results

Mark Carr presented the MPA size and MPA spacing evaluation results. Overall, External Proposed MPA Array D had the largest number of MPA clusters that met the size guidelines, External Proposed MPA Array A had the fewest, and external proposed MPA arrays B, F, G and H were similar to each other. The external proposed MPA arrays were ranked similarly during the MPA spacing evaluation, with External Proposed MPA Array D having the shortest gaps between protected habitats and External Proposed MPA Array A having the largest gaps between protected habitats. In the north coast study region, there are three habitats for which

the spacing guidelines are impossible to meet due to their patchy distribution: kelp, deep soft bottom, and deep rock. No proposal met the spacing guidelines for all possible habitats, though External Proposed MPA Array D met the guidelines for three habitats, and many proposals came close to meeting the guidelines for some habitats. The SAT approved this evaluation and presentation.

III. SAT Evaluations of Existing MPAs and North Coast External MPA Arrays (continued from day 1)

J. Review and discuss the bioeconomic model evaluation results

Eric Bjorkstedt presented the bioeconomic model evaluation results. The external proposed MPA arrays will be re-run during the Round 2 evaluations, since the models will be updated before then and have only been run for four species for Round 1 (redtail surfperch, black rockfish, cabezon, and red sea urchin). Overall, external proposed MPA arrays D and E had the highest conservation value, while external proposed MPA arrays B, F, G and H had lower conservation values but higher economic value for certain management scenarios. Maps of model outputs are available on the MLPA website. Members of the SAT discussed several aspects of the presentation, including potentially changing the term "conservation value" to "biomass," acknowledging MPA Proposal 0 when appropriate, and specifically noting how External Proposed MPA Array A was considered for the evaluation (as static MPAs). The SAT voted to approve the evaluation results and the presentations, pending the above revisions.

K. Review and discuss the potential commercial and recreational fishery impacts evaluation results

Astrid Scholz presented the evaluation of potential commercial and recreational fishery impacts. The potential commercial impacts were largely similar across proposals, which is different from previous study regions. Shelter Cove and Fort Bragg would experience greater economic impacts than the other port complexes in this round of evaluations. Recreational impacts are not currently included in the presentation, but can be included in the future. The disproportionate fishery impact results were also not included since they are most informative in later rounds of proposal development. The SAT approved the evaluation and presentation.

L. Review and discuss the water quality evaluation results

Dominic Gregorio presented the water quality evaluation results. All external MPA proposals scored a "1" (the highest possible score) for MPAs in embayments, and all proposals had high scores and were generally similar to each other in coastal MPAs. There were a number of MPAs proposed in areas of special biological significance, which contributed to the high scores. Dominic praised the proposals as doing a good job in terms of water quality, though he reminded everyone that water quality concerns should be a secondary consideration when designing MPA arrays. The SAT approved the evaluation and presentation.

M. Review and discuss the marine birds and marine mammals evaluation results

Craig Strong presented the evaluation results for potential benefits to marine birds and marine mammals. The evaluation only considered state marine reserves (SMRs), but also included the state marine conservation areas in External Proposed MPA Array C that only allowed tribal uses and no other extractive activities. Overall, external proposed MPA arrays C, D, and E

performed the best, and external proposed MPA arrays B, F, G and H were all similar to each other. However, all arrays performed relatively poorly and captured only small percentages of habitats, and no marine mammal hot spots or gray whale foraging areas were captured in SMRs. The work group is currently running new analyses including new waterfowl data and a neritic foraging hotspot analysis. The SAT approved the evaluation results and presentation, with several caveats. The work group will add the following items to the presentation: a summary of proposal rankings at the bottom of each evaluation slide, a statement about how SMRs will decrease human activity, an explanation of why the analysis is done over the whole study region, a few editorial suggestions, and a modification of how the estuarine habitats are presented.

II. MPA Design Guidelines and Evaluation Methods for the MLPA North Coast Study Region (continued from day 1)

N. Discuss progress made by the SAT tribal work group

Satie Airamé presented the draft guidelines for sharing information about tribal activities. The SAT has had several meetings with tribal community members, and their feedback has been incorporated into the document. SAT members discussed the potential for an evaluation of the impact of different MPA proposals on tribal activities, similar to the evaluation of commercial and recreational fisheries; these evaluations are dependent on accurate data collection. The SAT agreed that the tribal work group should move forward with the document and try to determine how much data might become available and what the timeline for that data collection might be. SAT members and others should email Satie with comments on the document, and she will draft a letter from staff to tribal representatives asking for input on the document and data collection methods.

- O. Review and discuss the species likely to benefit from MPAs in the north coast study region Seth Miller presented the species likely to benefit list. The list and criteria document are largely unchanged from the versions presented at the January meeting, and the SAT approved the list and supporting criteria document.
- P. Review and discuss water quality considerations in the MLPA north coast study region Dominic Gregorio presented the draft water quality guidance document for the north coast study region. This document is similar to the document from the south coast study region but incorporates information from the north coast study region, particularly with regard to estuaries and point versus non-point sources of pollution.

IV. Science Guidance Questions from the Public and External Array Proponents

Q. Review and discuss SAT responses to science questions

Satie Airamé presented the draft SAT responses to science questions and requested SAT feedback on the responses. Some SAT members made minor editorial comments on the responses; the SAT approved the responses, which will be presented to the NCRSG at its March 24-25 meeting.

Next Steps

R. Other items

Satie Airamé confirmed presenters of the evaluation results for the March 24-25 NCRSG meeting. Mark Carr will present the size and spacing evaluations and the introductory section, Karina Nielsen will present the habitat representation and replication evaluations, Eric Bjorkstedt will present the bioeconomic modeling evaluation, I-Team staff member Brian Owens will present the water quality evaluation, and Craig Strong will present the marine birds and marine mammals evaluation. The next SAT meeting will be held via teleconference and webinar on May 12.

Public Comment

Members of the public commented during all public comment periods, and focused their comments on the evaluation results and presentations. Additional public comments included a request to revisit the sea urchin LOP, questions about how tribal uses will be considered in the evaluations process, and a request to have additional presentations about marine birds and marine mammals.

Briefing Documents

- B.1: MLPA Initiative Staff Memo Regarding Legal Guidance from the California Department of Fish and Game and California Fish and Game Commission Staff (February 19, 2010)
- E.1: PowerPoint Presentation: Habitat Data Update for the MLPA North Coast Regional Stakeholder Group
- F.1: Draft Methods Used to Evaluate MPA Proposals in the MLPA North Coast Study Region (revised March 15, 2010)
- F.2: PowerPoint Presentation: Methods Used to Evaluate MPA Proposals in the MLPA North Coast Study Region
- G.1: Overview Maps of Existing MPAs and External MPA Arrays in the MLPA North Coast Study Region
- G.2: PowerPoint Presentation: Overview of the MLPA North Coast Study Region External MPA Arrays
- H.1: PowerPoint Presentation: Draft Habitat Evaluations of the Round 1 External Proposed MPA Arrays for the MLPA North Coast Study Region
- H.2: Summary of Key Points from SAT Evaluations of Round 1 North Coast Proposed External MPA Arrays: Habitat Representation, Habitat Replication, MPA Size, and MPA Spacing Analyses (March 15, 2010)
- I.1: PowerPoint Presentation: Draft Size and Spacing Evaluations of the Round 1 External Proposed MPA arrays for the MLPA North Coast Study Region

- J.1: PowerPoint Presentation: Draft Bioeconomic Evaluations of the North Coast Study Region External MPA Arrays
- K.1: PowerPoint Presentation: Draft Potential Commercial and Recreational Fishing Impacts Evaluations of the North Coast Study Region External MPA Array Proposals
- K.2: Summary of Potential Impacts of the February 2010 Proposed External MPA Arrays on Commercial and Recreational Fisheries in the North Coast Study Region (March 15, 2010)
- L.1: PowerPoint Presentation: Water and Sediment Quality Evaluations of the North Coast External MPA Arrays
- M.1: PowerPoint Presentation: Draft Marine Birds and Marine Mammals Evaluations for Round 1 External Proposed MPA Arrays in the MLPA North Coast Study Region
- M.2: Draft Marine Mammal Evaluation Results for Round 1 External MPA Arrays: Draft Supplemental Information (March 13, 2010)
- M.3: Draft Marine Birds Evaluation Results for Round 1 External MPA Arrays: Draft Supplemental Information
- N.1: Draft Guidelines for Sharing Information about Tribal Activities (March 14, 2010)
- O.1: Draft Criteria for Creating the List of Species Likely to Benefit from Marine Protected Areas in the MLPA North Coast Study Region (revised December 14, 2009)
- O.2: Draft List of Species Likely to Benefit from MPAs in the MLPA North Coast Study Region-(revised January 15, 2010)
- P.1: Draft Recommendations for Considering Water Quality and Marine Protected Areas in the MLPA North Coast Study Region (revised March 9, 2010)
- P.2: Water Quality Concerns and Opportunities: Draft Maps for the North Coast Study Region (Revised March 4, 2010)
- Q.1: Draft Responses to Science Questions Posed during MLPA Public Meetings from January 20 to February 11, 2010 (revised March 11, 2010)
- R.1: Summary of the February 11, 2010 Meeting of the MLPA Master Plan Science Advisory Team (February 17, 2010)